

## REMARKS

### Amendments

Claims 1-11 and 13-15 are currently pending in the application upon entry of the foregoing amendments. Claims 1 and 15 are amended to clarify that the process operates essentially without the addition of steam or water beyond what is normally generated during combustion processes. Reconsideration of the present application, as amended, and allowance of the pending claims is respectfully requested in view of the following remarks.

### Rejection Under 35 U.S.C. § 112

Claims 1 and 15 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite with respect to the terms “essentially free.” Applicants have amended the claims to clarify that the process operates essentially without the addition of steam or water, rendering the rejection moot.

Claim 8 was previously rejected in the Office Action dated January 5, 2006, under 35 U.S.C. § 112, second paragraph, for having insufficient antecedent basis for “said noble metal.” The Examiner did not indicate whether this rejection had been withdrawn. Accordingly, the Applicants respectfully remind the Examiner that claim 8 was amended to correct the deficiency, rendering the rejection moot.

### Rejection Under 35 U.S.C. § 102

Claims 1-3, 6, 8, 9, 13, 14, and 15 also were previously rejected in the Office Action dated January 5, 2006, under 35 U.S.C. § 102(b), as being anticipated by U.S. Patent 4,331,451 to Isogaya et al. (hereinafter “Isogaya”). The Examiner did not indicate whether this rejection had been withdrawn or maintained. Accordingly, the Applicants respectfully maintain their traverse of the novelty rejection for the reasons previously discussed in Applicants’ *Amendment and Response to Office Action*, filed on April 5, 2006.

Briefly summarized, Isogaya does not independently disclose each and every element of the Applicants' claimed invention. Specifically, Isogaya does not teach that the catalytic gasification process operates *essentially without the addition of steam or water*. Accordingly, the rejection should be withdrawn.

### **Rejection Under 35 U.S.C. § 103**

The Examiner rejected claims 1-3, 6, 8, 9, 13, 14, and 15 under 35 U.S.C. § 103(a) as being obvious over Isogaya in view of U.S. Patent 4,854,943 to Voeste (hereinafter "Voeste"). The Examiner also rejected claims 4, 5, 7, and 10-11 under 35 U.S.C. §103(a) as being obvious over Isogaya in view Voeste and further in view of U.S. Patent 5,010,051 to Rudy (hereinafter "Rudy"). Applicants respectfully traverse the rejections.

As detailed below, the cited prior art fails to establish a *prima facie* case of obviousness of the claims as amended.

### **There Is No Motivation to Combine the Cited References**

One of ordinary skill in the art would be unlikely to combine the cited references. Although Isogaya, Voeste, and Rudy each address processes for the catalytic conversion of hydrocarbons, the references teach away from combining the different technologies. For instance, Isogaya discloses that "if the amount of steam is insufficient, carbon is easily deposited" during partial combustion of heavy hydrocarbons (Col. 4, Lines 58-59). A skilled artisan would not then go against the teachings of Isogaya by combining Isogaya with Voeste. Isogaya also discloses that it is essential that the heavy residue be contacted with a chromium catalyst (an oxidation catalyst) after first being contacted with a steam reforming catalyst (Col. 6, Lines 22-35, 50-62). Voeste, conversely, teaches that the hydrocarbon may optionally be contacted with an igniting catalyst (an oxidation catalyst) prior to being contacted with a steam

reforming catalyst (Col. 2, Lines 28-58). Rudy, however, teaches that three-way conversion catalysts are polyfunctional and are capable of substantially simultaneously catalyzing both oxidation and reduction reactions. Accordingly, a skilled artisan would not combine Isogaya, Voeste, and Rudy because the processes are incompatible with each other.

In sum, the combination of the cited references fails to establish a *prima facie* case of obviousness. Accordingly, the rejections must be withdrawn.

**Rejection for Non-Statutory Obviousness-Type Double Patenting**

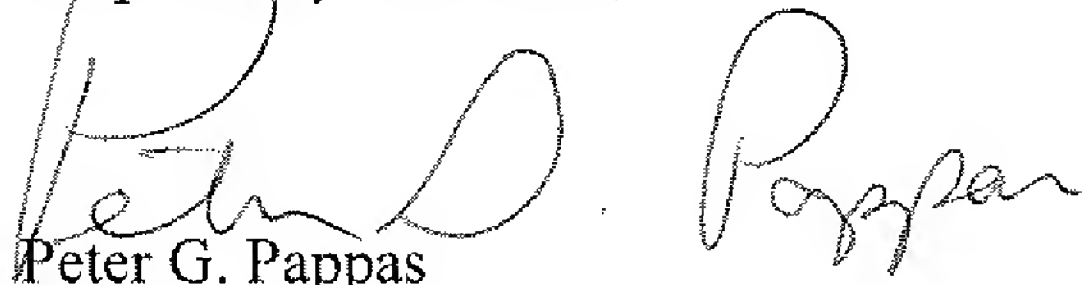
The Examiner provisionally rejected claim 1 under the judicially-created doctrine of obviousness-type double patenting as being unpatentable over claim 7 of co-pending Application No. 10/605,737 in view of Isogaya and Voeste. Applicants submit herewith a Terminal Disclaimer which now renders this rejection moot.

**Conclusions**

For the foregoing reasons, Applicants submit that claims 1-11 and 13-15 are patentable over the cited prior art. Allowance of the pending claims is therefore earnestly solicited.

If there are any issues which can be resolved by a telephone conference or an examiner's amendment, the Examiner is invited to telephone the attorney at (404) 853-8064.

Respectfully submitted,



Peter G. Pappas  
Reg. No. 33,205

SUTHERLAND ASBILL & BRENNAN LLP  
999 Peachtree Street, NE  
Atlanta, Georgia 30309-3996  
Telephone: (404) 853-8000  
Facsimile: (404) 853-8806